

## **Reporting Intellectual Capital In Annual Reports From Australian S/W & I/T Companies**

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### **ABSTRACT:**

This study examines the annual reports of the top 20 software and information technology companies listed on the Australian Stock Exchange, using the content analysis method. The findings of this study indicate that the levels of Intellectual capital disclosures are found to be low and are reported in qualitative form rather than quantitative form. The results of the study highlight that software and information technology companies in Australia do not attach importance to disclosing voluntary intellectual capital information. This study emphasises the need for an established and generally accepted framework for the reporting of intellectual capital to enable measurability and presentation of intellectual capital information in the annual reports.

*Keywords: Intellectual capital, Annual report, Australia, Software sector, Content analysis*

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### **1. Introduction**

Research in the area of intellectual capital disclosures has been gaining strong support from academics and business over the last few years. An immediate reason of this awareness and growing demand for intellectual capital disclosures is the major economic changes faced by most economies. Recent years have witnessed a paradigm shift in the nature, structure and operations of most industries driving a broad change in all economies. The emphasis is now in the intangibles than tangible assets and knowledge has become a key success factor. The globalisation of the world economy and the increasing role of information technology have also contributed significantly to this change. There is an increasing responsiveness among organizations about the importance of knowledge and its utilisation in a variety of ways, e.g. strategy formulation and implementation. Knowledge plays a critical role in production, distribution and growth in a wide range of industries and is classed as a factor of production due to its strategic importance. Australia is a knowledge economy and “in the knowledge economy, characterized by complex and dynamic competitive environments, knowledge-based resources represent the true source of sustained competitive advantage for the firm” (Pablos, 2003, p.62).

The Organisation for Economic Cooperation and Development (OECD) provided the following definition of Knowledge economy:

*“The knowledge based economy” is an expression coined to describe trends in advanced economies towards greater dependence on knowledge, information and high skill levels, and the increasing need for ready access to all of these by the business and public sectors (OECD, 2005; pp. 18).*

The growing importance and use of knowledge in any economy qualifies it as a knowledge economy. Such economy places greater emphasis on the use and management of knowledge (Cabrita and Vaz, 2005) and future prosperity depends on the efficient use of knowledge (Wood, 2003). In a knowledge economy, the value of an organisation not only is determined by its physical resources, but also depends on its ability to accumulate and deploy knowledge (Guthrie et al., 2004). Intellectual capital of a company is regarded as a major contributory to the growth and expansion of the knowledge base of the company.

This paper has eight sections. The second section introduces the term intellectual capital and its components. This section also discusses the nature of intellectual capital disclosures due to no contemporary reporting requirements. Third section briefly discusses the shift in the Australian economy including changes in its composition over last two decades. The fourth and fifth sections explain the nature of software industry in general and Australian software industry in particular. These sections also explain the critical importance of intellectual capital for software industry. Some facts and trends about Australian software industry are also briefly discussed. The sixth section provides the literature review related to disclosure of intellectual capital. Studies on the disclosures of intellectual capital in the software and information technology sector as used to present a case for such study in Australian context. The seventh section discusses the sample and justification of selection of the largest companies. This section also briefly explains the significance of the use of audited financial statements as evidence of company's intellectual capital disclosures. Intellectual capital disclosures are primarily voluntary and some rationale for current practice is also discussed particularly accounting standards and legislative requirements. The eighth section presents the findings this study using four analysis tables. The last section conducts a critical analysis of the findings. In this section, some limitations and implications of current study and suggestions for further research are also briefly discussed.

## **2. Intellectual Capital And Components**

Intellectual capital is a term used for knowledge based resources of organisations. In an intelligible form researchers proposed that the value of intellectual capital is the difference between market value and book value of a company (Brennan, 2001; Cordon, 1998; Oliveras et al, 2008) and one way to define intellectual capital is on the basis of its components (Woodcock and Whiting, 2009). Skilled employees, sound infrastructure, networking systems, information systems, innovativeness, brand name, trademarks and knowledge bases are some examples of intellectual capital (Khan and Ali, 2010). Sveiby's model has been used by many researchers over the last decade (Abeysekera, 2007; Abeysekera and Guthrie, 2005; Bozzolan, et al, 2003; Guthrie and Petty, 2000; Guthrie, et al, 2004; Guthrie, et al, 2006; Petty and Guthrie, 1999; Sujan and Abeysekera, 2007). Sveiby (1997) divided intellectual capital into internal capital, external capital and human capital. Internal capital mainly consists of the strength of any organisation and it includes its systems, research and development policies, procedures and internal control, patents, models, work environments, etc. In other words it includes the capabilities of an organisation to meet and beat the market competition.

The external component of intellectual capital consists of relational capital and efficiency in distribution and supply chains, brand and market image, trademarks, etc. The relational capital consists of relations with suppliers (of materials, services, finance, etc), customers, franchisees, etc. The human capital aspect of intellectual capital mainly consists of employee competence. Qualifications, skills, training and development which also includes knowledge of work procedures, work ethics and values, experience, etc (Bozzolan, et al, 2003; Guthrie and Petty, 2000; Guthrie, et al, 2004). This study supports the model proposed by Sveiby but uses Bontis's model of 39 items. According to Goh and Lim (2004) recent studies have three different perspectives related to intellectual capital. These are, first, development of a framework, second, the reporting of intellectual capital and third, the measurement of intellectual capital. There is no framework for the reporting and measurement of intellectual capital, rendering it difficult to either define intellectual capital at a most fundamental level or describe its components in a detailed fashion. According to Woodcock and Whiting (2009) the difficulty in defining intellectual capital can be attributed to the inherent complexity in the concept. One of the factors contributing to this complexity could be a lack of framework of reporting and recognition of intellectual capital as a component of financial reports, whether from a qualitative or quantities perspective.

There is a no accounting standard or legislative requirement to report intellectual capital as an item of annual reports or financial statements. Therefore, it is reasonable to expect an ad hoc practice is followed by companies for intellectual capital disclosures. As a result, intellectual capital disclosures are voluntary. According to Bruggen et al. (2009) due to voluntary nature of disclosures, only a few companies disclose intellectual capital and this leads to information asymmetry between companies and information users. Other drawback is an inconsistency in the presentation of information by different companies (Sujan and

Abeysekera, 2007). Lev's (2001) definition of intellectual capital fits closely with the popular meaning of intellectual capital as it is used in most contemporary research. Lev (2001) stated that "Intangible assets are non-physical sources of value (claims to future benefits) generated by innovation (discovery), unique organizational designs, or human resource practices" (p.7).

### 3. The Australian Economy

The Australian economy has undergone significant changes in previous decades. The deregulation of the Australian banking sector in the 1980s led to an unprecedented change in the economy and a complete transformation of the Australian priority sectors for economic development has been evidenced. A majority of the large organisations were depending more upon the use of knowledge than their physical resources (Guthrie and Petty, 2000). In last two decades, Australia has aimed to adopt technology and research and development in various fields including in the software industry, which is the subject of this study. As a result of this commitment, a large amount of resources have been devoted to promote these areas of software development and technological advancements (Guthrie, 1999). The meaning of this shift for Australia is that a more efficient and responsible management of intellectual capital has become necessary. Therefore, intellectual capital issues such as disclosures and measurement have now gained prominence in the contemporary research.

### 4. Software Industry

The software industry entirely depends on human resources particularly their skills, training and knowledge. Therefore, a significant value creation is possible by paying attention to the effective management of human resources (Wright and Snell, 2005). Pike, et al (2002) found that intellectual capital was an important component in the valuation of most companies and particularly high tech and software companies. The software industry also does not require extensive capital investments. Patibandla and Petersen (2002) stated that products in software industry require employees to possess special skills, knowledge and capabilities. In software companies the importance of intellectual capital is significant and intellectual capital has a comparative edge over tangible assets. One aspect of this comparative advantage is that intellectual capital cannot be replicated or reproduced like tangible assets. The efficient management of skills of employees is vital to succeed for a long term growth in the software industry; however, technology also plays an important role. Research also shows that employee skills and technology together result in improved financial results (Low, 2000; Seetharaman et al., 2002).

### 5. Australian Software Industry

The software industry In 2007, the Australian software market industry contributed A\$4.4 billion revenue to the economy. The compound annual growth rate (CAGR) for the years 2003-2007 was 7.1%, which was lower than the Asia-Pacific CAGR of 10.3%. In comparison to other Asia-Pacific countries, China and Japan, the Australian software industry growth over the 5 year period, 2003-2007 was less than China by 6% but slightly higher than Japan by 1.3%. The share of Asia-Pacific countries in the global software market was 27.3% in 2008 which ranks third after America and Europe's share of 42.6% and 30.1% respectively. This makes Australia's share in the world market close to 2%. At the same time, the USA's share in the global software market was 36.9%. In the Australian software sector, system software dominated over the application softwares sales in 2007 with 68.8% of the overall market value. However, the sale of application softwares in 2007 was \$1.4 billion which was 31.2% of the overall market value. The CAGR is expected to decrease at 5.8% over the 5 year period from 2007 to 2012.

#### Australian Software Market Value A\$ Billion 2003-2007

Year	A\$ billion	% Growth
2003	4.0	--
2004	4.3	7.2 %

2005	4.6	7.2 %
2006	4.9	7.0 %
2007	5.3	7.0 %
CAGR		7.1 %
Source: Datamonitor		

Microsoft Corporation was the dominant player in the Australian software market with an 11.8% share followed by 5.2% by IBM Corporation and 3.6% by the Oracle Corporation.

## 6. Literature Review

There have been many studies examining intellectual capital disclosures. Some of the selected studies include Australia (Guthrie and Petty, 2000; Sujan and Abeysekera, 2007), Ireland Brennan, 2001), Sweden (Olsson, 2001), Canada (Bontis, 2003), Malaysia (Goh and Lim, 2004), Sri Lanka (Abeysekera and Guthrie, 2005; Abeysekera (2007), New Zealand (Whiting and Miller, 2008; Schneider and Samkin, 2008), India (Kamath, 2008; Murthy and Abeysekera, 2007; Joshi and Ubha, 2009) and Bangladesh (Khan and Ali, 2010).

Guthrie and Petty (2000) conducted a study of intellectual capital disclosures of the 20 largest Australian listed companies. The selection of companies was conducted on the basis of market capitalisation which was a general practice in other contemporary studies as well. They found that intellectual capital disclosures were primarily qualitative and lacked quantitative aspects. The awareness of intellectual capital reporting was also not systematic and there was loose commitment to report among reporting companies. A study of 21 Irish companies was conducted by Brennan (2001) employing content analysis of annual reports with 11 listed companies and 10 private companies. Another study employed the content analysis of the largest 18 Swedish companies using the human capital aspect (Olsson, 2001) and selection of companies was made on the basis of market capitalisation. The analysis was based on five criteria from the annual reports. This study found that there was an inadequate disclosure of intellectual capital in annual reports and it also lacked reporting quality. The human capital information was not more than 7% of the total reported information in the annual reports. In a seminal study, Bontis (2003) conducted a content analysis of 10,000 Canadian companies and found that only 68 companies used terms related to intellectual capital in their annual reports, which makes intellectual capital reporting companies less than 1 percent in the sample.

Goh and Lim (2004) examined the intellectual capital disclosures by top 20 profit-making public listed companies in Malaysia. The disclosures were primarily qualitative and in external capital and infrastructure assets followed by employee competence. In a study of human capital reporting of top 30 Sri Lankan companies Abeysekera and Guthrie (2004) found that there were considerable differences in reporting between developing and developed nations which was attributed by developing nation's unique political, social and economic institutional set up. In an Australian study, Sujan and Abeysekera (2007) replicated an earlier study by Guthrie and Petty (2000) and employed content analysis of 20 companies selected on the basis of market capitalisation. They found that intellectual capital disclosures were mostly qualitative but there was a significant increase in quantitative disclosures as compared to Guthrie and Petty (2000). There was 1% increase in internal capital reporting but human capital reporting decreased by 9% as compared to previous study. External capital nearly accounted for half of the total intellectual capital disclosures with 48% value. Abeysekera and Guthrie (2005) and Abeysekera (2007) carried out analysis of top 30 listed companies selected on the basis of market capitalisation in the Colombo Stock Exchange. They found that intellectual capital reporting in Sri Lanka was not consistent and lacked a theoretical framework. Abeysekera (2007) found that Sri Lankan companies reported human capital more as an intellectual capital category. Abeysekera (2007) and Guthrie and Petty (2000) were two similar studies in Australia where Abeysekera examined intellectual capital reporting in greater detail.

Guthrie, et al (2006) carried out a content analysis of the annual reports of companies in a comparative study of two countries completed in two phases. The first phase used 1998 data for the 20 largest

Australian organizations and the second phase used 2002 data of the 50 largest Australian and 100 Hong Kong organizations selected on the basis of market capitalisation. Their findings were similar to other researches that IC disclosures were not only inadequate but primarily qualitative and lacked quantification. The analytical tools used to study the financial health of organisations primarily employ only quantified data which makes IC disclosures less important if they are only qualitative. Kamath (2008) carried a study of the voluntary intellectual capital disclosures by 30 Indian Tech companies by way of a content analysis and found that intellectual capital disclosures by Tech companies were negligible.

In a New Zealand study, Whiting and Miller (2008) examined the intellectual capital disclosures by 70 companies and tested the hidden value of intellectual capital which is the difference between market and book value. The companies were placed in two industry types, namely, high tech and traditional. They found no significant relationship between the hidden value of intellectual capital and its disclosures. Schneider and Samkin (2008) investigated the intellectual capital disclosures by 82 local government authorities in the New Zealand local government sector. They found a variation in the reporting of intellectual capital. The top reported category was internal capital followed by external capital and human capital was the least reported category. Khan and Ali (2010) measured the intellectual capital disclosures by private commercial banks in Bangladesh. They found that disclosures were mainly in the human capital area, with internal capital being the least reported item. Davey, et al (2009) examined the intellectual capital disclosures by 30 companies in the fashion industry, with the top 15 European companies and the top 15 North American companies. They found external capital as the most reported item followed by internal capital. However, contrary to Khan and Ali (2010), the human capital was the least reported item. This can be attributed to the difference in the type of industry.

Despite the fact that the importance of intellectual capital has increased in recent times, there are inadequate disclosures of intellectual capital in the financial statements of companies (Bruggen et. al., 2009). Australia presents an ideal case for the analysis of intellectual capital disclosures (by the largest software companies) because the economy has been undergoing economic transformation in the financial services, tourism, information technology sectors and the niche manufacturing gaining momentum. These industries have a significant role of intellectual capital in their operations, sustainability and growth. This has led to a decline in the importance of traditional strong areas such as manufacturing and mining (Abeysekera and Guthrie, 2005). In past there have been dedicated studies of the intellectual capital disclosures by software industry. For example Kamath (2008), Murthy and Abeysekera (2007) and Joshi and Ubha (2009) carried out content analysis of intellectual capital disclosures of the Indian software industry. It justifies a study of the Australian software sector and this paper aims to make a contribution to the growing literature on intellectual capital disclosures by analysing the level of disclosures made by the most important sector of a knowledge economy, software industry.

## 7. Sample And Method

This paper employs a content analysis of annual reports of the 20 largest Australian software and information technology companies selected on the basis of their market capitalisation. Many researchers have used the largest listed companies to study the intellectual capital disclosures where selection of companies was made on the basis of market capitalisation (Abeysekera, 2007; Guthrie and Petty, 2000; Olsson, 2001; Guthrie et al, 2006; Abeysekera and Guthrie, 2004; Abeysekera and Guthrie, 2005; Guthrie, et al, 2004; Bontis, 2003). A large number of studies have employed content analysis of annual reports in a wide range of research activity and a popular field has been corporate social responsibility and environmental reporting (Belal, 2001; Deegan and Gordon, 1996; Deegan and Rankin, 1996; Guthrie and Parker, 1990, Guthrie and Mathews, 1985; Hackston and Milne, 1996; Milne and Adler, 1999; Zeghal and Ahmed, 1990). The content analysis of annual reports involves codification of qualitative and quantitative information into pre-defined categories in order to derive patterns in the presentation and reporting of information (Guthrie and Petty, 2000). Over the last decade, content analysis has been used to study the intellectual capital performance and reporting (Abeysekera, 2007; Abeysekera and Guthrie, 2005; April et al, 2003; Bontis, 2003; Bozzolan, et al, 2003; Brennan, 2001; Guthrie and Petty, 2000; Guthrie, et al, 2004; Guthrie, et al, 2006).

In a study using content analysis of a UK company ranging over 13 years of disclosures, Gray et al (1995) found that size and time were important factors for most of the voluntary Corporate Social Responsibility (CSR) disclosures. This justifies the rationale for taking the largest software companies because voluntary CSR disclosure patterns can also be generalised to apply to intellectual capital disclosures. In their study, Guthrie et al (2004) also agreed that size was an important variable and found that some researchers have tried to break this notion by taking a sample across a range of companies. Guthrie et al (2006) argued that large companies were presumed to be more innovative and resource enriched, thereby resulting in higher intellectual capital disclosures. They found that voluntary intellectual capital disclosures were positively related to company size. Bozzolan et al (2003) also confirmed that size of company determined the extent of voluntary disclosures. In an Australian study of determinants of intellectual capital disclosures, Bruggen et al (2009) found that industry type was a significant factor along with the size of company.

Bontis (2003) claimed that audited statements are an important source of information for external stakeholders who aim to assess financial capacity of organizations. Bontis further claimed that efficient market theory proved that current market price reflects all publicly available information including that from annual reports. Therefore, it can be claimed that increased intellectual capital disclosures in annual reports can have significant effects on future potentials of organizations. Annual reports are a useful piece of information and managers use them to signal what is important through reporting mechanism (Guthrie and Petty, 2000) and this makes annual reports a strong nexus between company and various stakeholders. Repeated publication of annual reports every year adds further characteristics such as comparability and enables multi facets analysis. Toms (2002, p.258) claimed that “specifically intangible asset creation occurs through enhanced reputation and disclosure influences the external perception of reputation”. Guthrie and Petty (2000) established a view that companies use corporate annual reports to present a good public image.

International Accounting Standards Board (IASB) and Financial Accounting Standards Board (FASB) of the USA started the convergence of accounting standards project in 2002 and an international conceptual framework guiding accounting practice is still not issued. The definition of asset in the Australian Conceptual Framework does not have space for valuation of intellectuals as assets. Intellectual capital does not satisfy the criteria set for inclusion as asset on balance sheet. In fact lack of a systematic mechanism to measure intellectual capital and ability to place a reliable dollar figure is a significant hurdle. Therefore, mandatory intellectual capital disclosure requirements cannot be enforced. It leaves organizations to make voluntary disclosures and primarily such disclosures are qualitative. A rationale for voluntary intellectual capital disclosures was presented by Bontis (2003) who found that companies were giving greater importance to intellectual capital disclosures due to their strategic importance in the operations of organizations. Bontis (2003) also claimed that increased amount of disclosures in annual reports bring financial benefits. There is now an increasing body of research which claims that intellectual capital disclosures result in improved financial results (Bontis, 2001, 2003).

To shortlist the terms for finding corporate disclosures of intellectual capital, a survey of literature was performed. The panel of researchers from the World Congress on Intellectual Capital finalised the list of intellectual capital items into a collection of 39 terms that encompassed much of the IC literature (Bontis, 2003). The list used by Bontis was considered comprehensive for this type of research on knowledge based information technology companies (Joshi and Ubha, 2009). These intellectual capital terms are listed in the Appendix 1.

## 8. Analysis Of The Results

Intellectual capital terms were found using content analysis; the items reported and their line counts are presented in Table 1.

**Table 1: Disclosure Of Intellectual Capital Attributes**

Sr.	Items of intellectual capital	No of	Number of Lines
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No.		Disclosing Companies	Disclosed
1.	Business knowledge	2	8
2.	Company reputation	9	46
3.	Competitive intelligence	3	12
4.	Corporate learning	2	6
5.	Customer knowledge	1	4
6.	Employee knowledge	1	2
7.	Employee value	1	1
8.	Knowledge sharing	1	2
9.	Information systems	3	11
10.	Intellectual capital	2	6
11.	Intellectual property	16	108
12.	Knowledge management	1	1
13.	Human assets	1	3
14.	Organizational culture	7	43

Table 1 highlights that out of the list of 39 items; only 14 items were found in the annual reports of the Australian IT companies. The term intellectual property has been disclosed by 16 companies with a line count of 108 lines and it was the maximum disclosure of any item by the companies under study. This was followed by the disclosure of company reputation having been disclosed by 9 companies and organizational culture which was disclosed by 7 companies. The line count for these items was 46 and 43 respectively. Intellectual capital, the theme term of this paper, was disclosed by 2 companies only in 6 lines. These companies include SMS Management and Technology and ASG Group. SMS Management and Technology signifies the importance of its intellectual capital in its annual report (2008) by stating as follows:

*The Company continued to invest in developing its intellectual capital during the year. This included: Extension to our Knowledge Management portal 'Magellan' and Enhancement of our Customer Relationship Management System*

It further reports that

*SMS invests heavily in the development of our intellectual capital and the growth of our staff through open and collaborative forums, coupled with industry best practice. Throughout FY 2008, SMS has made considerable inroads in the continued codification of its intellectual capital and knowledge into reusable tools, templates, methods and processes.*

ASG Group gives importance to its intellectual capital in its annual report for the year 2008 by stating as follows:

*Health is also the subject of a build up of capability to assist clients who are increasingly being driven by efficiency and client coverage objectives. Again, ASG has spent considerable time building on its client relationships and its intellectual capital in this area. The client base recognises the strategic focus that the Company is placing on this area.*

The term knowledge management which must be an item of prime importance for disclosure at least by knowledge based IT companies was disclosed only by SMS Management and Technology with one line count. The term business knowledge which reflects the capability of any company was disclosed by two companies only. ASG Group shares this information in its annual report of 2008 which states:

*Because this is done over the long term, our role as prime contractor, our business knowledge*

*and our ability to offer a complete solution through our own resources and through access to our subcontractors, ASG adopts a strong incumbency position*

Employees are the real reservoir of knowledge and the success or failure of any company depends to a large extent on the value of its employees. It is astonishing to observe that employee value has been disclosed by only one company, namely, Melbourne IT which reports it as under:

*Talented and dedicated employees are key to Melbourne IT's continuing success and growth and we recognise the importance of rewarding, developing and retaining our staff.*

Knowledge sharing is the key to betterment and the same has again been disclosed by only one company i.e. DWS Advanced Business Solutions as below:

*To stay ahead of our competitors, DWS has invested in a culture for capturing and sharing knowledge, enabling a cycle of continuous improvement. This has been done through: Showcasing innovative solutions at monthly meetings; Rewarding staff based on their involvement in encouraging best practice; and sharing information through the DWS internal employee portal.*

However, most of the terms relating to the employees and customers could not find any place in the annual reports of the selected companies. The three important constituents of intellectual capital- relational capital, structural capital and customer capital-also did not figure in any of the annual reports of the companies under study.

**Table 2: Company-wise Analysis Of Intellectual Capital Disclosure**

<b>Sr. No.</b>	<b>Name of the Company</b>	<b>No of Items Disclosed</b>	<b>Number of Lines Disclosed</b>
1.	SMS Management &	4	20
2.	Technology	5	36
3.	Technology One	3	7
4.	Oakton	1	14
5.	Reckon	1	11
6.	UXC	6	22
7.	DWS Adv. Business Solutions	5	20
8.	Melbourne IT	5	27
9.	ASG Group	1	6
10.	Hansen Technologies	1	3
11.	Objective	2	9
12.	GBST	5	22
13.	ITX Group Limited	0	0
14.	ISS Group	2	15
15.	Bravura Solutions	2	9



16.	Prophecy International	1	2
17.	Rubik Financial	1	7
18.	3Q	2	12
19.	QMASTOR	0	0
20.	Dark Blue Sea	1	9
	Stratatel		

Table 2 highlights the company wise analysis of the intellectual capital disclosure. The table shows that DWS Advanced Business Solutions has disclosed the maximum number of items (06) and line count (22) from the total list of 39 items. The disclosure of 6 items out of 39 is deplorably low and reflects that the company has not considered intellectual capital disclosure as an important disclosure subject. This is followed by Technology One, Melbourne IT, ASG Group and ITX Group Limited with a disclosure of 5 items and SMS Management and Technology with disclosure of 4 items. Disclosures by the remaining companies disclosed in the range of 1 to 3 items where as ISS Group and Dark Blue Sea did not disclose even a single item of intellectual capital.

**Table 3: Variation In Item-wise Disclosure**

No. of Disclosing Companies	2008
Number of Items Covered	
0	2
1	7
2	4
3	1
4	1
5	5
Mean Disclosure	2.35
Standard Deviation	1.76
Coefficient of Variation	74.89%

**Table 4: Variation In Line-wise Disclosure**

No. of Disclosing Companies	2008
Number of lines Covered	
0-5	4
5-10	6
10-15	3
15-20	1
20-25	4
25-30	1
30-35	0
35-40	1
Mean Disclosure	13.25

Standard Deviation	1.90
Coefficient of Variation	14.34%

The mean disclosure for the items disclosed by the companies comes to be as low as 2.35 items. There is a variation of 1.76 items on average as suggested by the value of standard deviation. The coefficient of variation comes to be as high as 74.89% which indicates a significant variation in item-wise disclosure in the annual reports of the companies. The mean disclosure in Line Count also comes to 13.25 lines with a variation of 1.90 lines on average as suggested by standard deviation. The coefficient of variation comes to be meagre 14.34% which indicates lesser variation in line-wise disclosure in the annual reports of the companies. There is no specific reporting pattern of intellectual capital as a special part or content of the annual report in spite of its high relevance in the knowledge intensive companies.

## 8. Conclusion

The analysis of the reporting patterns of Australian software and information technology companies shows very low level of IC recording and reporting by the sample companies. The findings of this research exhibit that intellectual capital disclosures are not a priority for the Australian information technology sector. The average number of items and lines reported by the sample companies is very low which suggests that there is low awareness and a lack of interest in recording and reporting of intellectual capital variables by the companies. The companies have not even reported principal intellectual capital terms such as intellectual capital, knowledge management and employee skills and quality. The reporting practices for intellectual capital items were not consistent and lacked an appropriate measurement approach. It has also been found that there is a general absence of well defined guidelines for the intellectual capital disclosure in the annual reports from the national or international accounting bodies and Australian professional accounting associations. Accordingly, Australian information technology companies are lagging behind in the reporting and disclosure of intellectual capital in their annual reports. However, the findings of the study are similar to various other studies on different corporate groups (Abeysekera and Guthrie, 2005; Brennan, 2001; Bontis, 2003 and Pablos, 2003) and the studies on information technology sector (Joshi and Ubha, 2009; Kamath, 2008) conducted by intellectual capital researchers in different countries. Knowledge, innovation, information technology and people are key contributors in the future of any organisation and intellectual capital is the key driver of market value in the knowledge economy. The low level of reporting on intellectual capital by the Information Technology companies, whose very basis of existence is knowledge and innovation may be partly because of the fact that disclosures of Intellectual capital are voluntary in nature.

It has been already discussed in this paper that there is no established financial reporting framework for the disclosures of intellectual capital either in Australia or worldwide and it includes accounting bodies and the accounting profession. The absence of clear guidelines and regulatory frameworks has resulted in only a few organisations adopting a proactive approach in attempting to measure and voluntarily report this type of information. The accounting bodies in Australia, the Certified Practising Accountants (CPA, Australia), the Institute of Chartered Accountants in Australia (ICAA, Australia) and the Australian Accounting Standards Board (AASB) and accounting bodies at the global level, the International Federation of Accountants (IFAC), the Financial Accounting Standards Board (FASB, US) and the International Accounting Standards Board (IASB) should design a common and internationally accepted framework for reporting system of intellectual capital in order to ensure standardised reporting practice.

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## **Appendix 1: Items of intellectual capital**

Corporate university

Cultural diversity

Customer capital

Economic value added

Employee expertise

Employee know-how

Employee productivity

Employee efficiency

Employee skill

Knowledge assets

Expert teams

Knowledge stock

Management quality

IC

Relational capital

Intellectual material

Intellectual resources

KM

Expert networks

Human capital

Human value

Organizational learning

Intellectual assets

Structural capital

Corporate university

Cultural diversity

Customer capital

Economic value added

Employee expertise

Employee know-how

Employee productivity

Employee efficiency

Employee skill

Knowledge assets

Expert teams  
Knowledge stock  
Management quality  
IC  
Relational capital  
Intellectual material  
Intellectual resources  
KM  
Expert networks  
Human capital  
Human value  
Organizational learning  
Intellectual assets  
Structural capital  
Supplier knowledge

## **Appendix 2: 25 Items Of Intellectual Capital Not Disclosed By Australian Information Technology Sector**

Corporate university  
Cultural diversity  
Customer capital  
Economic value added  
Employee expertise  
Employee know-how  
Employee productivity  
Employee efficiency  
Employee skill  
Knowledge assets  
Expert teams

Knowledge stock

Management quality

IC

Relational capital

Intellectual material

Intellectual resources

KM

Expert networks

Human capital

Human value

Organizational learning

Intellectual assets

Structural capital

Supplier knowledge



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